

CERTIFICATE OF ANALYSIS

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Product Description: V-PLEX® and V-PLEX Plus Proinflammatory Panel 1 (human) Kit
Kit Catalog Numbers: K15049-Series, K15052-Series, K15053-Series, K151QR-Series, K151OD-Series
Kit Lot Number: K0081192
Expiration Date: 31 Mar 2021

Acceptance Data/ Percent Recovery Specifications:

Spot	Name	Calibrator		Proinflammatory Panel 1 (human) Control 1		Proinflammatory Panel 1 (human) Control 2		Proinflammatory Panel 1 (human) Control 3	
		Recovery	CV	Recovery	CV	Recovery	CV	Recovery	CV
1	hu IFN- γ	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
2	hu IL-1 β	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
3	hu IL-2	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
4	hu IL-4	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
5	hu IL-6	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
6	hu IL-8	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
7	hu IL-10	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
8	hu IL-12p70	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
9	hu IL-13	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%
10	hu TNF- α	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%	80% - 120%	< 20%

Spot	Name	LLOQ			ULOQ		
		Value	Recovery	CV	Value	Recovery	CV
1	hu IFN- γ	1.76	80% - 120%	< 20%	938	80% - 120%	< 20%
2	hu IL-1 β	0.646	80% - 120%	< 20%	375	80% - 120%	< 20%
3	hu IL-2	0.890	80% - 120%	< 20%	938	80% - 120%	< 20%
4	hu IL-4	0.218	80% - 120%	< 20%	158	80% - 120%	< 20%
5	hu IL-6	0.633	80% - 120%	< 20%	488	80% - 120%	< 20%
6	hu IL-8	0.591	80% - 120%	< 20%	375	80% - 120%	< 20%
7	hu IL-10	0.298	80% - 120%	< 20%	233	80% - 120%	< 20%
8	hu IL-12p70	1.22	80% - 120%	< 20%	315	80% - 120%	< 20%
9	hu IL-13	4.21	80% - 120%	< 20%	353	80% - 120%	< 20%
10	hu TNF- α	0.690	80% - 120%	< 20%	248	80% - 120%	< 20%

Acceptance Data/ Non Specific Binding Specifications:

Spot	Name	NSB Spec
1	hu IFN- γ	< 1.0%
2	hu IL-1 β	< 1.0%
3	hu IL-2	< 1.0%
4	hu IL-4	< 1.0%
5	hu IL-6	< 1.0%
6	hu IL-8	< 1.0%
7	hu IL-10	< 1.0%
8	hu IL-12p70	< 1.0%
9	hu IL-13	< 1.0%
10	hu TNF- α	< 1.0%

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Stock Concentration of Material Tested :

Spot	Name	Item	Conc	Units
1	hu IFN- γ	Calibrator	1230	pg/mL
		Proinflammatory Panel 1 (human) Control 1	512	pg/mL
		Proinflammatory Panel 1 (human) Control 2	132	pg/mL
		Proinflammatory Panel 1 (human) Control 3	40.9	pg/mL
2	hu IL-1 β	Calibrator	576	pg/mL
		Proinflammatory Panel 1 (human) Control 1	203	pg/mL
		Proinflammatory Panel 1 (human) Control 2	47.1	pg/mL
		Proinflammatory Panel 1 (human) Control 3	10.9	pg/mL
3	hu IL-2	Calibrator	1470	pg/mL
		Proinflammatory Panel 1 (human) Control 1	390	pg/mL
		Proinflammatory Panel 1 (human) Control 2	38.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.34	pg/mL
4	hu IL-4	Calibrator	208	pg/mL
		Proinflammatory Panel 1 (human) Control 1	102	pg/mL
		Proinflammatory Panel 1 (human) Control 2	20	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.05	pg/mL
5	hu IL-6	Calibrator	765	pg/mL
		Proinflammatory Panel 1 (human) Control 1	264	pg/mL
		Proinflammatory Panel 1 (human) Control 2	46.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	8.18	pg/mL
6	hu IL-8	Calibrator	569	pg/mL
		Proinflammatory Panel 1 (human) Control 1	235	pg/mL
		Proinflammatory Panel 1 (human) Control 2	36.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	5.93	pg/mL
7	hu IL-10	Calibrator	367	pg/mL
		Proinflammatory Panel 1 (human) Control 1	133	pg/mL
		Proinflammatory Panel 1 (human) Control 2	25.3	pg/mL
		Proinflammatory Panel 1 (human) Control 3	3.32	pg/mL
8	hu IL-12p70	Calibrator	528	pg/mL
		Proinflammatory Panel 1 (human) Control 1	186	pg/mL
		Proinflammatory Panel 1 (human) Control 2	35.6	pg/mL
		Proinflammatory Panel 1 (human) Control 3	6.99	pg/mL
9	hu IL-13	Calibrator	505	pg/mL
		Proinflammatory Panel 1 (human) Control 1	170	pg/mL
		Proinflammatory Panel 1 (human) Control 2	43.8	pg/mL
		Proinflammatory Panel 1 (human) Control 3	12.7	pg/mL
10	hu TNF- α	Calibrator	347	pg/mL
		Proinflammatory Panel 1 (human) Control 1	92	pg/mL
		Proinflammatory Panel 1 (human) Control 2	17.2	pg/mL
		Proinflammatory Panel 1 (human) Control 3	2.53	pg/mL

Controls tested may not be the same lot as shipped.

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Standard Curve Data:

hu IFN- γ - Spot 1		
Conc. pg/mL	ECL Signal	%CV
1230	211,000	1.8
308	54,900	1.6
76.9	14,000	2.6
19.2	3,670	2.7
4.80	1,170	2.9
1.20	551	4.0
0.300	377	10.0
0.00	311	6.1

hu IL-1 β - Spot 2		
Conc. pg/mL	ECL Signal	%CV
576	1,440,000	1.7
144	398,000	1.3
36.0	106,000	2.0
9.00	27,000	2.3
2.25	7,310	2.5
0.563	2,380	2.3
0.141	1,140	3.8
0.00	696	3.2

hu IL-2 - Spot 3		
Conc. pg/mL	ECL Signal	%CV
1470	1,260,000	2.4
368	358,000	1.0
91.9	96,600	1.6
23.0	24,400	1.8
5.74	6,470	3.4
1.44	1,780	3.3
0.359	610	4.7
0.00	208	8.2

hu IL-4 - Spot 4		
Conc. pg/mL	ECL Signal	%CV
208	782,000	3.0
52.0	242,000	2.1
13.0	63,900	3.9
3.25	16,900	3.6
0.813	4,280	3.0
0.203	1,240	3.0
0.0508	411	5.5
0.00	153	15.0

hu IL-6 - Spot 5		
Conc. pg/mL	ECL Signal	%CV
765	1,440,000	2.4
191	343,000	2.0
47.8	75,900	1.7
12.0	17,800	2.4
2.99	4,460	2.1
0.747	1,220	2.6
0.187	397	4.0
0.00	119	13.0

hu IL-8 - Spot 6		
Conc. pg/mL	ECL Signal	%CV
569	659,000	2.9
142	171,000	1.9
35.6	42,600	2.9
8.89	11,000	2.5
2.22	2,910	2.9
0.556	905	2.6
0.139	376	6.5
0.00	205	12.0

hu IL-10 - Spot 7		
Conc. pg/mL	ECL Signal	%CV
367	742,000	1.6
91.8	218,000	1.8
22.9	58,100	1.8
5.73	14,800	1.7
1.43	3,950	2.2
0.358	1,160	2.2
0.0896	466	6.6
0.00	228	9.3

hu IL-12p70 - Spot 8		
Conc. pg/mL	ECL Signal	%CV
528	437,000	2.4
132	135,000	1.5
33.0	36,500	3.3
8.25	9,590	3.2
2.06	2,580	3.2
0.516	879	4.0
0.129	368	9.2
0.00	227	14.0

hu IL-13 - Spot 9		
Conc. pg/mL	ECL Signal	%CV
505	1,150,000	2.2
126	205,000	1.8
31.6	28,700	2.0
7.89	4,580	2.2
1.97	1,160	2.7
0.493	390	3.7
0.123	193	8.4
0.00	130	8.7

hu TNF- α - Spot 10		
Conc. pg/mL	ECL Signal	%CV
347	301,000	3.7
86.8	75,800	3.6
21.7	18,700	3.0
5.42	4,760	3.9
1.36	1,390	2.8
0.339	509	3.3
0.0847	304	7.2
0.00	211	11.0

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Components:

Description	Lot Number	Storage Temperature	Expiration Date
Proinflammatory Panel 1 (human) Plate	Z0047030	2-8°C	31 Jul 2021
Anti-hu IFN- γ Antibody	D0081180	2-8°C	31 Mar 2022
Anti-hu IL-1 β Antibody	D0081091	2-8°C	31 Oct 2021
Anti-hu IL-2 Antibody	D0081129	2-8°C	31 Jan 2022
Anti-hu IL-4 Antibody	D0081126	2-8°C	31 Jan 2022
Anti-hu IL-6 Antibody	D0081160	2-8°C	30 Apr 2022
Anti-hu IL-8 Antibody	D0081097	2-8°C	30 Nov 2021
Anti-hu IL-10 Antibody	D0081134	2-8°C	31 Mar 2022
Anti-hu IL-12p70 Antibody	D0081127	2-8°C	31 Jan 2022
Anti-hu IL-13 Antibody	D0081092	2-8°C	31 Oct 2021
Anti-hu TNF- α Antibody	D0081170	2-8°C	28 Feb 2022
Proinflammatory Panel 1 (human) Calibrator Blend	A0080187	2-8°C	31 Dec 2023
Diluent 2	M0020103	$\leq -10^{\circ}\text{C}$	31 Mar 2021
Diluent 3	M0030087	$\leq -10^{\circ}\text{C}$	30 Jun 2021
MSD Read Buffer T	Not Kit Specific	Not Kit Specific	N/A

Additional Components Included in V-PLEX Plus	
Plate Seals	Not Kit Specific
Wash Buffer (20X), 100 mL	Not Kit Specific
Proinflammatory Panel 1 (human) Control 1	Not Kit Specific
Proinflammatory Panel 1 (human) Control 2	Not Kit Specific
Proinflammatory Panel 1 (human) Control 3	Not Kit Specific

Statement:

The above product is intended for Research Use Only. Not for use in Diagnostic Procedures.

	Name	Function	Signature	Date
Review/Approval	Karen Hamilla	Quality		06 JUN 2019